

## Type **SHPZJ, SHPE**

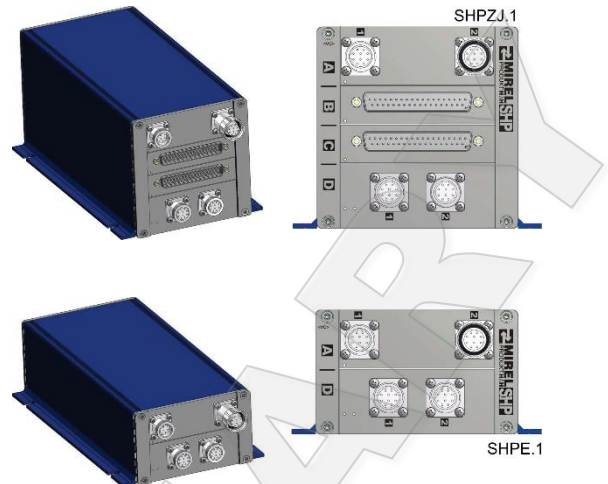
illustrative pictures

The evaluation and inspection unit SHPZJ, or eventually MIREL SHPE, is an integrated device intended for Polish rail line infrastructure, which integrates elements of rail line electromagnets detection and safety functions of vigilance prompting, together with subsequent consequences, should the vigilance prompting not be accommodated. An inseparable part of the MIREL SHP system is the SHPA detector (antenna).

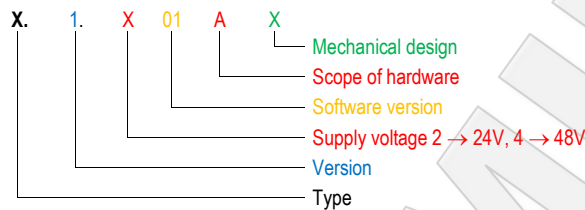
It represents a fully-fledged double-channel evaluation of passing over rail line electromagnet, together with a cyclical vigilance supervision, meeting requirements of safety integrity level SIL4.

The device is produced in a compact design of small modular systems of BOXTUG and BOXKOG types.

The evaluation and inspection unit SHPZJ and MIREL SHPE meets requirements on fire properties pursuant STN EN 45545-2; level HL2.



### Nomenclature



### Type

Designation	Description
SHPZJ	Separate central unit of MIREL SHP system with integrated „CUVAK“ vigilance prompting functionality
SHPE	Cooperating device for MIREL VZ1 system for functionality extension by SHP system

### Modifications

Designation	Dimension W x H x D [mm]	Construction system	Modification of construction system	Assembly	IP rating <sup>1)</sup>	Type
L	130 x 105 x 228	BOXTUG	17A	left	IP40	SHPZJ
	130 x 64,5 x 228	BOXTUG	09A	left	IP40	SHPE
P	130 x 105 x 228	BOXTUG	17A	right	IP40	SHPZJ
	130 x 64,5 x 228	BOXTUG	09A	right	IP40	SHPE
U	132 x 129 x 226	BOXKOG	17	-	IP40	SHPZJ
	76 x 129 x 226	BOXKOG	09	-	IP40	SHPE

<sup>1)</sup> the IP rating is in the state of the connected connectors

## Modifications

Designation	Supply voltage [VDC]	Software version	Construction system	Modification of construction system	Assembly	Weight [kg]
SHPZJ.1.201AL	24	01	BOXTUG	17A	left	1,8
SHPZJ.1.201AP	24	01	BOXTUG	17A	right	1,8
SHPZJ.1.201AU	24	01	BOXKOG	17	-	2,0
SHPZJ.1.401AL	48	01	BOXTUG	17A	left	1,8
SHPZJ.1.401AP	48	01	BOXTUG	17A	right	1,8
SHPZJ.1.401AU	48	01	BOXKOG	17	-	2,0
SHPE.1.201AL	24	01	BOXTUG	09A	left	1,2
SHPE.1.201AP	24	01	BOXTUG	09A	right	1,2
SHPE.1.201AU	24	01	BOXKOG	09	-	1,3
SHPE.1.401AL	48	01	BOXTUG	09A	left	1,2
SHPE.1.401AP	48	01	BOXTUG	09A	right	1,2
SHPE.1.401AU	48	01	BOXKOG	09	-	1,3

## Specifications

Number	Version	Title
1068M	170516	BOXTUG Installation conditions
2468M	180604	BOXKOG Installation conditions
2298SHP	190123	Technical conditions

## Usage

MIREL VZ1 – Automatic Train Protection System

MIREL SHP – Train protection